Supplementary Report:
Racially Polarized Voting in Miami, Florida

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Introduction and Scope of Work

My name is Bryant J. Moy, Ph.D., and I am a faculty fellow in the Center for Data Science and a Visiting Assistant Professor in the Wilf Family Department of Politics at New York University. My qualifications were further described in my initial report dated February 10, 2023.

I have been asked to analyze two proposed maps and provide my expert opinion on whether Black voters could elect their preferred candidates in the newly constituted District 5. The first is Plaintiff's 4 ("P4") and the second is the City of Miami's proposed map ("City"). I was provided a geolocated voter file and two shape files containing the geographic boundaries of newly constituted District 5.

In this report, I first provide racial demographic data of registered voters under the current map, the P4 plan, and the city's proposal. Second, I analyze the performance of the Black-preferred candidate in six recent contests from 2022. Lastly, I re-analyze five contests from 2020 where I previously showed evidence of racial polarization. I discuss how the newly proposed maps make it easier for Black voters to translate their preferences to higher vote totals for their preferred candidate.

Summary of Findings

- Black voters in the City of Miami cohesively support a single candidate in the six recent elections: Senate, Governor, County Judge Group 5, Chief Financial Officer, Commissioner of Agriculture, and Attorney General. Moreover, non-Black voters' support for the Black-preferred candidate is under 50% in all contests. I find patterns of racially polarized voting in these contests.

- In the six recent elections, the Black-preferred candidate received the vast majority of the top two-candidate vote across both newly proposed districts. Moreover, the Black-preferred candidate would have received more votes under the P4 plan than both the enjoined map and the city's proposed plan.

- In the re-analysis of five previously polarized contests in 2020, I find that the Black-preferred candidate would prevail under either of the proposed districts. More importantly, the Black-preferred candidates under P4 have a marginally higher likelihood of prevailing given the larger makeup of the district regardless of the Black share of the precinct.

1   Racial Demographics of Registered Voters in District 5

There are 220,103 registered voters in Miami.[1] In Table 1 I show the racial composition of registered voters under each map's District 5. The City of Miami has a majority-Hispanic electorate with Anglos (non-Hispanic whites) constituting 21% of the electorate and Blacks constituting 17% of the electorate.

Table 1: District 5 Racial Composition: Registered Voters

Race	Enjoined	Enjoined %	P4	P4 %	City	City %
Anglo	6,813	14.0%	7,550	15.0%	6,782	14.0%
Black	28,054	57.6%	28,156	55.5%	27,793	57.0%
Hispanic	13,166	27.0%	14,324	28.0%	13,338	27.0%
AAPI/American Indian	661	1.3%	703	1.4%	713	1.5%
Total	48,694	-	50,733	-	48,626	-

2   Black-Preferred Candidates in Recent Elections

In this section, I analyze six recently help contests in 2022 to assess the extent to which they show patterns of racially polarized voting: U.S. Senate, Governor, Attorney General, Chief Financial Officer, Commissioner of Agriculture, and County Judge Group 5. I estimate the extent to which Black voters cohesively support a single candidate using bivariate scatterplots. The x-axis corresponds with the Black Share of the Total Citizen Voting Age Population for 2020, while the y-axis corresponds with the Black preferred candidate's vote share within Miami precincts.[2] I draw a linear line of best fit through the cluster of precincts. The positive association means that as the Black share of the Citizen Voting Age Population increases, the Black-preferred candidate receives a higher share of the vote.

For all contest, when the precinct is homogeneously Black, the identified Black-preferred candidate receives overwhelming support. Similarly, when precincts are homogeneously non-Black, the Black-preferred candidate fails to receive the majority of the votes on average. All of the six contests analyzed show signs of racially polarized voting.[3]

In Table 2, I indicate which individuals are the Black-preferred candidates and include their ethnicity in parentheses: "B" represents Black, "W" represents non-Hispanic white, and "H" represents Hispanic of any race.

Table 2: List of Elections Analyzed

Race	Black-Preferred Candidate	Non-Black-Preferred Candidate
US Senate	Demings (B)	Rubio (H)
Governor	Crist (W)	DeSantis (W)
Attorney General	Ayala (B)	Moody (W)
Chief Financial Officer	Hattersley (W)	Patronis (W)
Commissioner of Agriculture	Blemur (B)	Simpson (W)
County Judge Group 5	Seraphin (B)	Diaz de la Portilla (H)

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1. Consistent with the first report, I include Black, Anglo, Hispanic, AAPI/American Indian and exclude voters whose race is recorded as "Other," "Multi-racial," or "Unknown" throughout the analysis. Registered voters recorded as both active and inactive status are included in this analysis.

2. For this analysis, I use the top two candidates only.

3. In 5 of the 6 contest, when the Black share of CVAP is 0, the Black-preferred candidate receives a vote share in the low 40s. In the County Judge Group 5, however, when the Black share of CVAP is 0, the Black-preferred candidate receives 49% of the vote. While still under 50%, there is suggestive evidence that the County Judge Group 5 may show less racial polarization than the other contests.

Figure 1: Black Preferred Candidates in Recent Contests
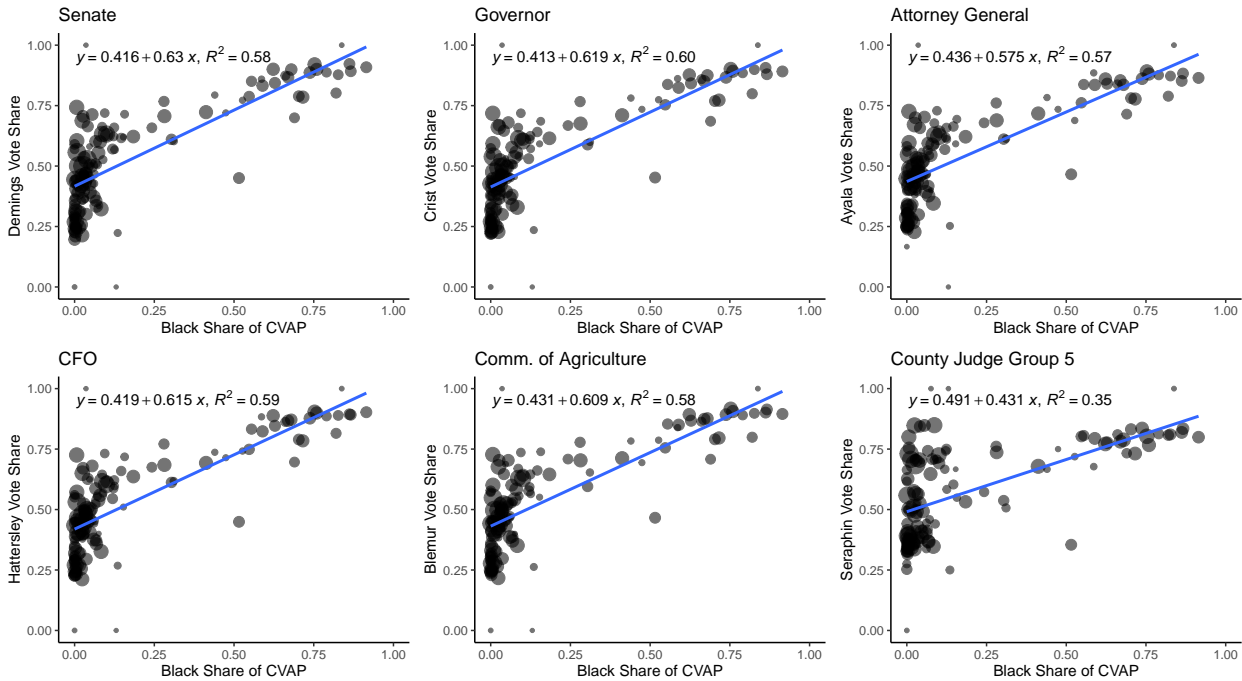
2.1   Performance of Black-Preferred Candidate in Recent Elections

Using precinct-level results of six elections held in 2022, I aggregate results to determine how many votes the Black-preferred candidate would have received within the boundaries of the two newly constituted districts (See Table 3). The two-candidate vote shares were similar across proposed districts.[4] The Black-preferred candidate would have prevailed in all contests analyzed at the district-level. According to Table 3, the Black-preferred candidate would receive more votes under the P4 map than both the enjoined and the city's plan.

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4. I use the top two candidate vote totals to examine the contest's Black-preferred and non-Black-preferred candidates.

Table 3: Black-Preferred Candidate Performance in Recent Election

Race	Map	Vote Total	Black-Pref. #	Black-Pref. %	Non-Black-Pref. #	Non-Black-Pref. %
County Judge Grp 5	Enjoined	7157	5234	73.1%	1923	26.9%
County Judge Grp 5	P4	7046	5433	77.1%	1613	22.9%
County Judge Grp 5	City	7548	5735	76.0%	1813	24.0%
US Senate	Enjoined	16807	12230	72.8%	4577	27.2%
US Senate	P4	15942	12718	79.8%	3224	20.2%
US Senate	City	17753	13815	77.8%	3938	22.2%
Governor	Enjoined	16849	11989	71.2%	4860	28.8%
Governor	P4	15966	12462	78.1%	3504	21.9%
Governor	City	17782	13530	76.1%	4252	23.9%
Attorney General	Enjoined	16660	11979	71.9%	4681	28.1%
Attorney General	P4	15876	12403	78.1%	3473	21.9%
Attorney General	City	17678	13507	76.4%	4171	23.6%
CFO	Enjoined	16554	11908	71.9%	4646	28.1%
CFO	P4	15762	12418	78.8%	3344	21.2%
CFO	City	17552	13477	76.8%	4075	23.2%
Comm. of Agriculture	Enjoined	16607	12182	73.4%	4425	26.2%
Comm. of Agriculture	P4	15830	12645	79.9%	3185	20.1%
Comm. of Agriculture	City	17608	13743	78.0%	3865	22.0%

3 Black-Preferred Candidate Performance in Previously Racially Polarized Elections

Table 4: Black-Preferred Candidate Performance in Previous RPV Elections

Race	Map	Vote #	Black-Pref. #	Black-Pref. %	Non-Black-Pref. #	Non-Black-Pref. %
President	Enjoined	36848	28308	76.8%	8540	23.2%
President	P4	38379	31312	81.6%	7067	18.4%
President	City	41234	33233	80.6%	8001	19.4%
County Mayor	Enjoined	32852	24968	76.0%	7884	24.0%
County Mayor	P4	34145	27473	80.5%	6672	19.5%
County Mayor	City	36703	29209	79.6%	7494	20.4%
County Judge Grp 9	Enjoined	12043	7281	60.5%	4762	39.5%
County Judge Grp 9	P4	12798	8198	64.1%	4600	35.9%
County Judge Grp 9	City	13325	8443	63.4%	4882	36.6%
Circuit Judge Group 57	Enjoined	12348	7563	61.2%	4785	38.8%
Circuit Judge Group 57	P4	13140	8741	66.5%	4399	33.5%
Circuit Judge Group 57	City	13685	8976	65.6%	4709	34.4%
Circuit Judge Group 67	Enjoined	12189	6362	52.2%	5827	47.8%
Circuit Judge Group 67	P4	12891	7219	56.0%	5672	44.0%
Circuit Judge Group 67	City	13428	7504	55.9%	5924	44.1%

In this section, I re-analyze five 2020 contests that exhibited signs of racial polarization in my previous report: President, County Mayor, County Judge Group 9, Circuit Judge Group 57, and Circuit Judge Group 67. In Table 4, I aggregate the official election results for each district and show how many votes the Black-preferred candidate would have received under each map. Across all contests, the Black-preferred candidate would have received the majority of the votes in District 5.

Figures 2 - 6 depicts the relationship between the Black share of the Citizen Voting Age Population and the share that the Black-preferred candidate received. I report the linear line of best fit and the R^2 in each graph. As we see in the figures, Black voters are able to translate their preferences into high vote shares for their preferred candidate. Furthermore, the P4 plan increases the likelihood that the Black-preferred candidate will prevail over the enjoined map and the plan proposed by the city. Specifically, as shown in the

4

equation, the intercept is shifted upward which meaning that the Black-preferred candidate is in a better position to prevail given the larger makeup of the district regardless of the Black share of the precinct. Take the County Mayor contest for example. The y-intercept shifts from .648 in enjoined map to .716 to the plaintiff's plan. This shift is even larger compared with the city's plan (.638 to .716).
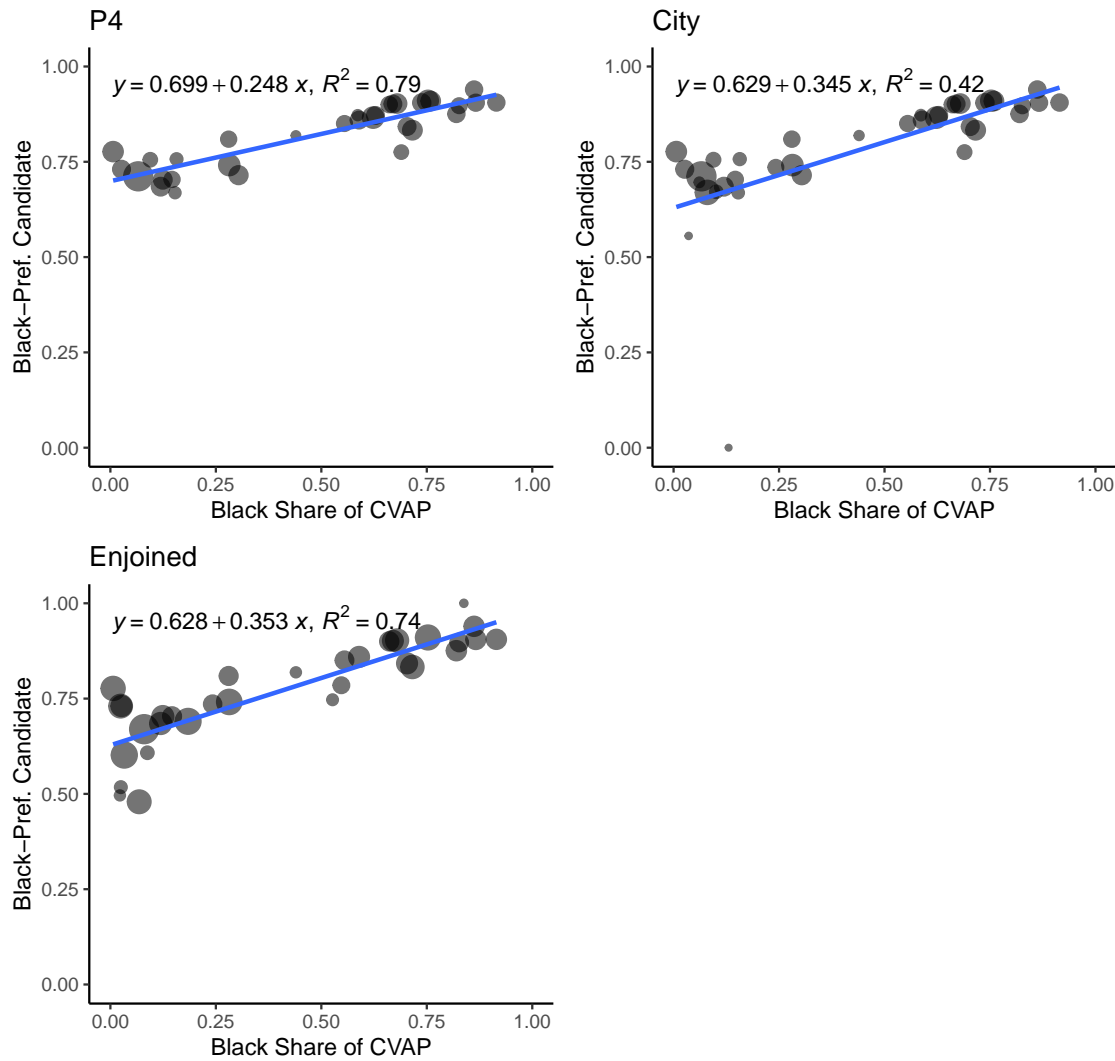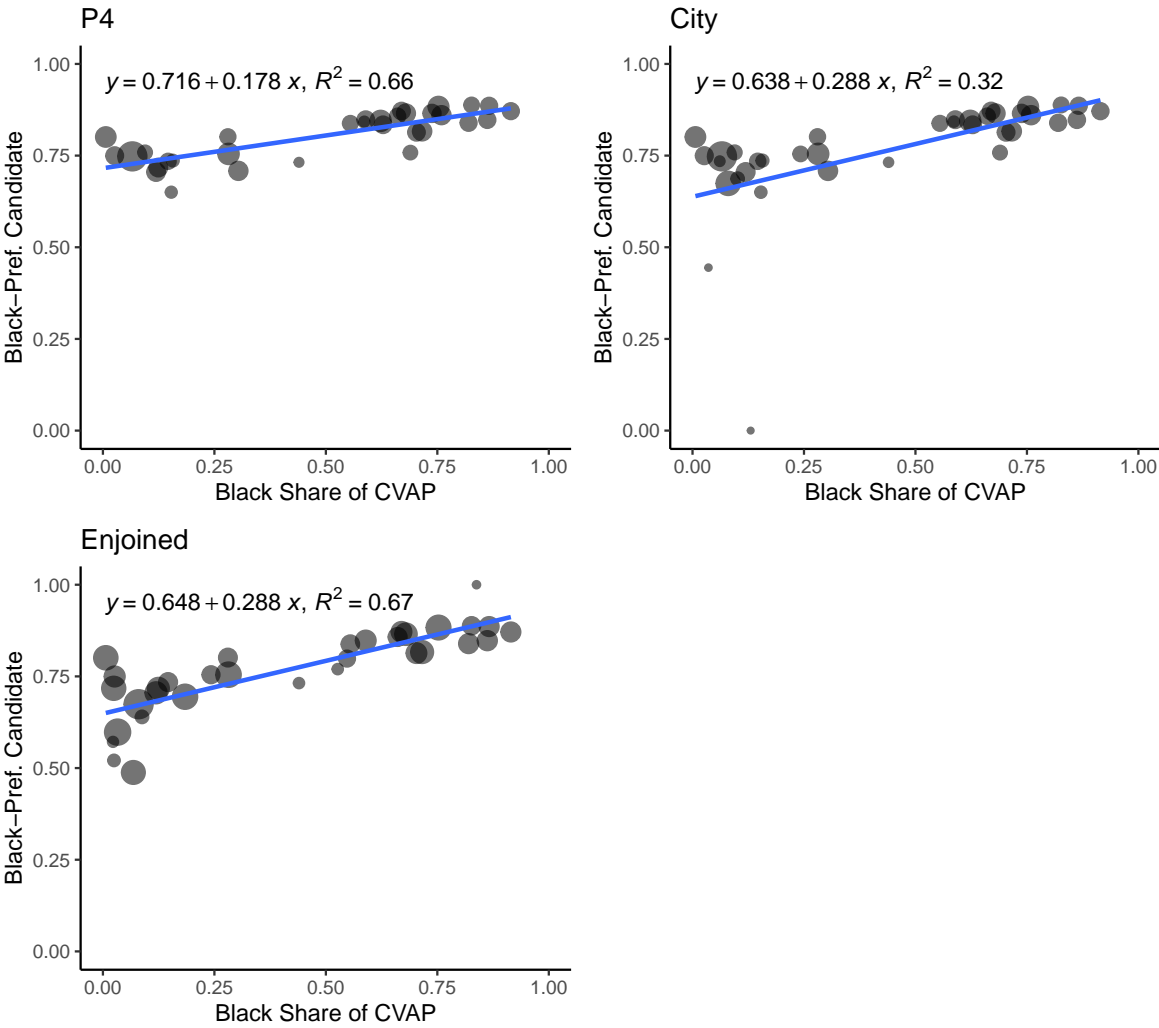

Figure 2: Presidential Election

Figure 3: County Mayor

P4

$y = 0.716 + 0.178\,x,\ R^2 = 0.66$

City

$y = 0.638 + 0.288\,x,\ R^2 = 0.32$

Enjoined

$y = 0.648 + 0.288\,x,\ R^2 = 0.67$

6

Figure 4: County Judge Group 9

P4

$y = 0.478 + 0.325\,x,\ R^2 = 0.73$

City

$y = 0.477 + 0.328\,x,\ R^2 = 0.73$
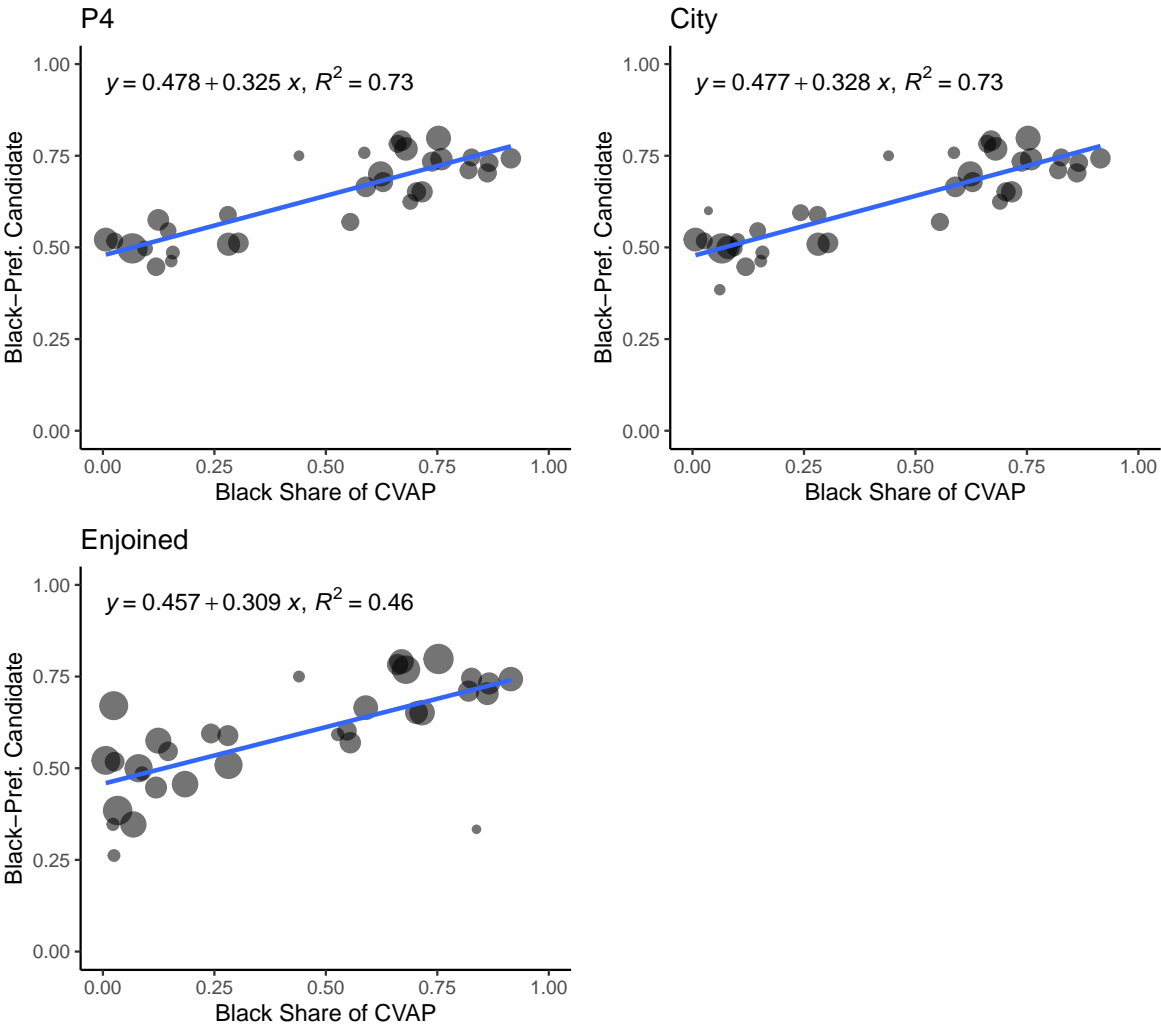
Enjoined

$y = 0.457 + 0.309\,x,\ R^2 = 0.46$

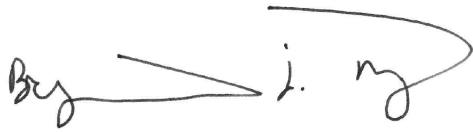Figure 5: Circuit Judge Group 57
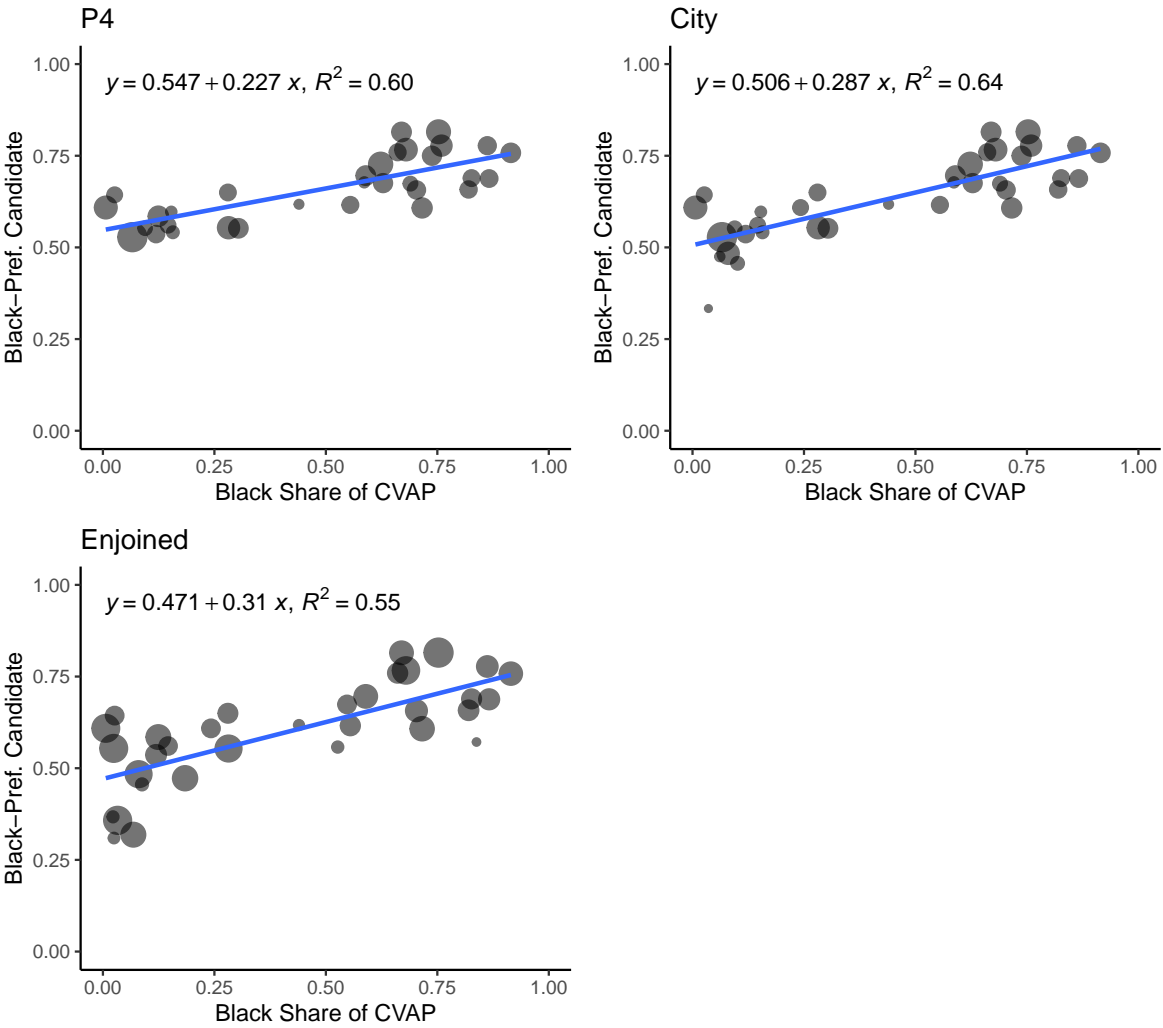
Figure 6: Circuit Judge 67
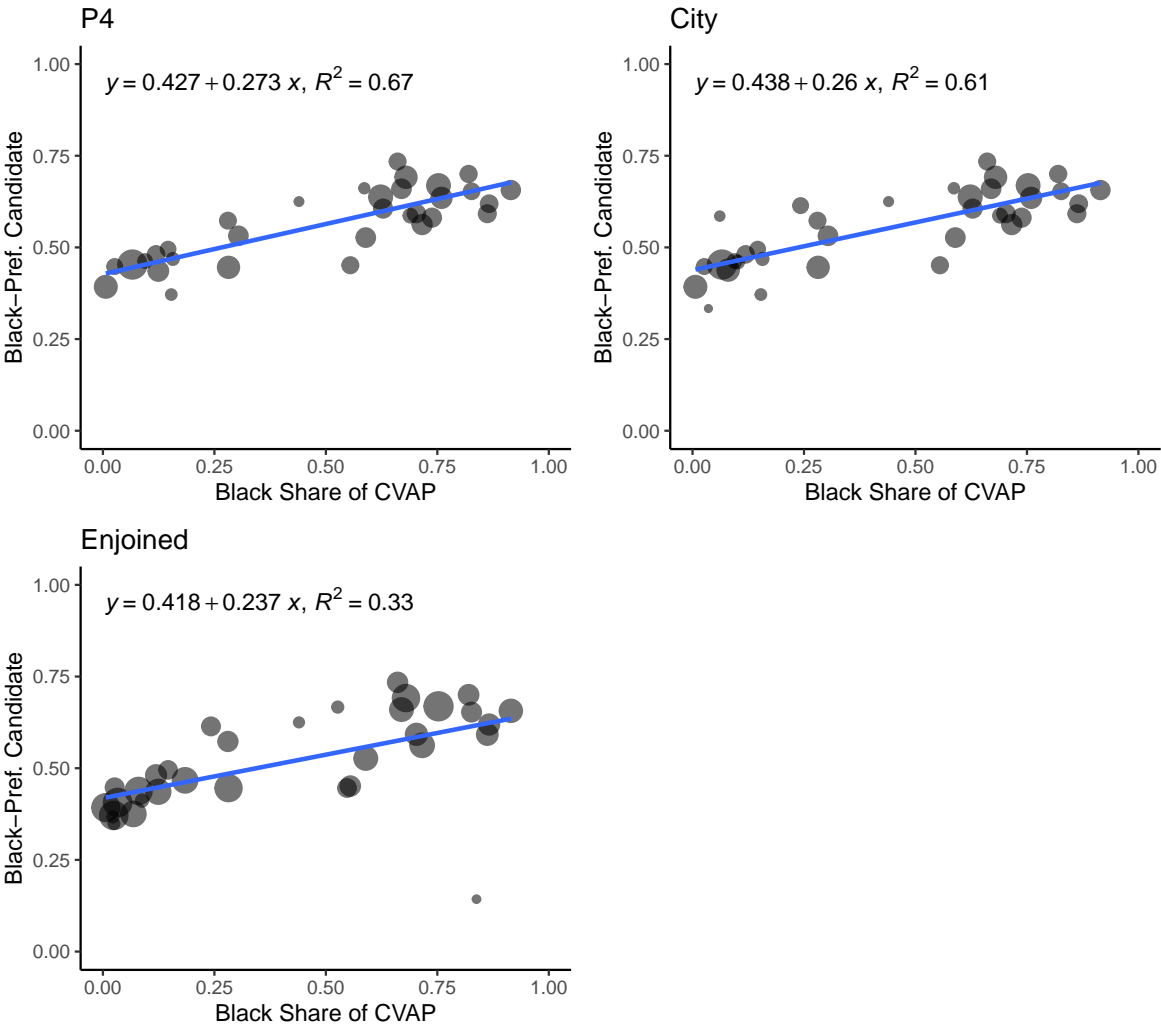
Summary

In this report, I analyzed two newly proposed maps for District 5: plaintiff's 4 ("P4") and the city's plan ("City"). I analyzed six recent elections and found that Black support is cohesive for a single candidate and non-Black support for the Black-preferred candidate is under 50%. Moreover, in those elections, the Black-preferred candidate will receive the majority of the votes in the newly proposed districts. Next, I re-analyzed five contests that previously showed evidence of racial polarization. The Black-preferred candidate would prevail in either of the two proposed districts. More importantly, Black voters would have seen their preferred candidate receive a higher vote share under P4 than both the city's plan and the enjoined plan.

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